

Chapter 9. MoveAZ and the Five-Year Program

The previous chapters of the MoveAZ plan discussed its three primary objectives: 1) to develop a strategic direction for transportation in the State of Arizona, 2) to coordinate with stakeholders and the public, and 3) to identify specific transportation projects for ADOT to deliver over the long term. This chapter addresses the transition from MoveAZ (planning) to ADOT's Priority Programming Process, the method used to identify specific transportation projects for funding in the *Five-Year Transportation Facilities Capital Program* (Five-Year Program). The chapter presents ADOT's existing programming process, as well as an updated process that incorporates MoveAZ.

■ 9.1 Existing Priority Programming Process

The State Transportation Board has the authority to prioritize individual airport and highway projects in Arizona. Prioritization is accomplished through programming – the process of identifying individual transportation needs, defining projects to address those needs, and determining the order in which these projects receive funding. The Five-Year Program is the result of this process. It is updated each year to address changes in cost and scope to projects programmed in previous years and to add new projects into the fifth year of the program.

This section provides an overview of the programming process, including:

- The responsibilities of the Transportation Board, several committees, and ADOT in developing the Five-Year Program;
- Key project identification and funding differences between subprograms and major capital projects;
- The process of allocating resources to subprograms and projects and among regions of the State; and
- The process for programming major capital projects.

Key Committees and Responsibilities

The Transportation Board has ultimate responsibility for adopting the Five-Year Program. This is accomplished by working with ADOT and several advisory committees that help to identify the appropriate funding for projects across the State. The committees that help the Board develop the program include:

- **Priority Program Advisory Committee (PPAC)** - The PPAC consists of the State Engineer; the Deputy State Engineers in charge of Program Development, the Valley Transportation System, and Operations; and the ADOT Directors of Transportation Planning, Aeronautics, and Motor Vehicles. This group assists the Transportation Board in setting overall priorities for the program.
- **Technical Advisory Committee (TAC)** - The TAC includes representatives from ADOT's Transportation Planning and Intermodal Transportation Divisions, including district engineers. This group reviews and evaluates programming requests and recommends the priority program to the PPAC.
- **Project Review Board (PRB)** - The PRB is comprised of Development Group Managers from ADOT's Intermodal Transportation Division. This group addresses cost and schedule changes for projects under design.
- **Resource Allocation Advisory Committee (RAAC)** - The RAAC is comprised ADOT officials, Directors of MAG and PAG, Directors of two MPOs and/or councils of governments (COG), and Director of either the Regional Public Transit Association in Maricopa County or SunTran in Pima County. This group operates on a consensus decision-making basis to recommend how funding should be distributed among both the regions of the State and particular resource allocation categories (e.g., pavement preservation, safety, etc.).

Subprograms and Major Capital Projects

The programming process is designed to fund projects that will help ADOT meet its responsibilities to maintain and expand the transportation system in Arizona. These responsibilities include a wide variety of activities, such as repaving highways, providing funding to special needs transit operators, developing ADOT construction capabilities, and expanding capacity on the highway system. ADOT has identified three broad system categories that capture all of these activities:

1. **System preservation** includes projects that maintain the physical condition of the transportation system, such as pavement and bridge preservation;
2. **System management** includes funding for project and program development, such as scoping projects, testing materials, and conducting environmental reviews; and

3. **System improvements** include projects to address capital expansion of the transportation system, such as adding new lanes to existing highways, building new interchanges, and other similar projects.

Table 9.1 lists the key resource allocation categories within each of these three broad system categories. It also indicates which method is used to select and fund projects and activities.

Table 9.1 Program Resource Allocation Categories and Project Selection Method

System Category	Resource Allocation Category	Project Selection Method
System Preservation	• Bridge preservation	• Subprogram
	• Operational facilities	• Subprogram
	• Pavement preservation	• Subprogram
	• Public transit	• Subprogram
	• Roadside facilities	• Subprogram
	• Safety program	• Subprogram
System Management	• Development support	• Subprogram
	• Operating support program	• Subprogram
	• Operating contingency	• Subprogram
System Improvements	• Corridor improvements	• Major capital process
	• Major capacity/operational spot improvements	• Major capital process
	• Minor capacity/operational spot improvements	• District priorities
	• Roadside facilities improvements	• Subprogram

The process of selecting projects for inclusion in the Five-Year Program varies by resource allocation category. For many categories, a subprogram identifies the projects to be built in a given year. These subprograms typically use management systems to identify projects that help ADOT meet standards established by the Transportation Board. For example, the pavement preservation subprogram uses a pavement management system to determine the level of funding needed to maintain pavement quality at an acceptable level, and identify the highest priority projects in a given year. The Transportation Board allocates a pool of funding to each subprogram as a whole, based on an estimate of the total need for that subprogram. In general, most subprograms have identified greater needs than available funding. The State Transportation Board works with its advisory committees to set funding levels for each subprogram. Funding is then provided to

particular projects using management systems and other tools, as well as Transportation Board input, to select the projects that are most clearly needed in a given year.

Major capital projects go through a different, but complimentary process, described in more detail below. Because the subprograms use management systems that have their own performance measures or related evaluation methodologies to select projects, the MoveAZ plan, as well as this discussion of programming, focuses entirely on major capital projects. The remainder of this chapter is focused only on major capital projects. Subprograms are expected to use their existing processes to identify program projects.

Resource Allocation

Resource allocation is a combined process of financial forecasting and determining the distribution of these resources to major projects and subprograms and to major regions of the State. ADOT Financial Management Services (FMS) identifies the total funding available to the Five-Year Program (as well as the MoveAZ plan) from state and Federal sources. These estimates are based on projected receipts of fuel taxes, vehicle license fees, and other taxes and fees collected by Arizona and the Federal government. These estimates are updated at regular intervals to provide the most current and accurate assessment of available funding, as periodic economic changes can impact ADOT's ability to fund particular projects.

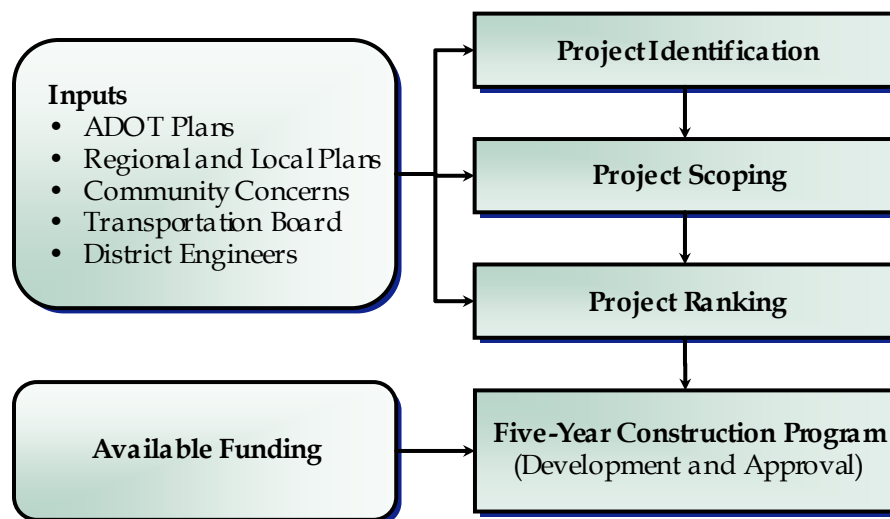
The RAAC provides guidance on allocating available funds among the regions of the State. For the last several years, the Transportation Board has divided funding among three regions of the State: Maricopa County, Pima County, and the 13 other counties. Maricopa receives 37 percent of the funding, Pima 13 percent, and the 13 other counties 50 percent.

In addition, funding is allocated to major projects and subprograms. The Transportation Board identifies funding levels for each subprogram as a whole, reserving funding each year to be programmed for major capital projects. As described in Chapter 6, the historical split between major capital projects and subprograms was used to estimate funding available to major capital projects over the course of the MoveAZ plan.

Programming Major Capital Projects

This section describes ADOT's process for identifying major capital projects and moving them through the programming process. This process is a joint effort of ADOT, MPOs, COGs, and the State Transportation Board. Though subprograms undergo a similar process, the discussion here is concerned exclusively with major capital projects. Figure 9.1 provides a graphic overview of the existing programming process. The steps of this process are described below.

Figure 9.1 ADOT’S Existing Priority Programming Process



Project identification – Project submittals come from several sources, including ADOT studies, regional, local, or tribal studies, district engineer recommendations, and community concerns. District engineers typically help identify major corridor and spot projects in their districts in consultation with local and regional officials and the public.

Project scoping – Once projects have been identified, a preliminary study (called a project scope) is conducted to estimate project need, potential impacts, preliminary design, and cost. Project scoping identifies whether a project requires more detailed environmental review or has fatal flaws that prevent it from being constructed. The scoping process ensures that a project meets the criteria of project readiness required by State statute (see Chapter 3 for additional detail). With hundreds of projects requested each year, the selection of projects to be scoped is the first stage of prioritization in the analysis of projects.

Project ranking – Once a scope is completed for a major project, it enters the pool of programmable projects. However, many more projects are identified each year than can be programmed in that year. The ranking process determines which projects ADOT will recommend to the Technical Advisory Committee and the Transportation Board for inclusion in the Five-Year Program. ADOT’s Priority Programming Team recently implemented an updated project ranking methodology that compares projects on several quantitative and qualitative measures. Three overall measures are evaluated for each major project:

1. **Safety** – Number of crashes and the crash rate (crashes per million vehicle miles traveled) on the affected highway segments.
2. **Mobility** – Existing and future traffic volumes on the affected roadway segments and existing and future levels of service (LOS).

3. **Strategic/planning** – Project location on the National Highway System, Strategic Highway Network, and CANAMEX Corridor; system operating classification of the roadway; and functional class of the roadway.

Each major capital project that is considered for programming is scored on these three measures. After scoring and ranking the projects on the three measures, they are grouped into high, medium, and low priority lists of projects. These lists are used in the development of the program.

Program Development – The draft Five-Year Program is assembled from major projects and subprograms (see Table 9.1). The ranked pool of projects identified in the previous step is assembled into a Five-Year Program based on available resources and Transportation Board priorities. The first four years of the program are committed to projects identified in previous cycles, with new projects added to the fifth year of the program. At the programming stage, ADOT seeks to answer several questions that are not asked at the planning level, including:

- Is a project ready to be developed (i.e., project readiness)?
- Is there a local funding match for particular projects that might accelerate their delivery in the program?
- Are there operational constraints to delivering projects – such as a project already being developed in a corridor – that make it difficult to deliver a particular project?

The answers to these questions affect the specific projects that get included in the draft program. Using the lists described in the Project Ranking stage, the Technical Advisory Committee develops a recommended program. The Board reviews this program and makes changes to it using the same lists of projects identified in the project ranking stage. After the recommended program has been reviewed and refined by the Board, ADOT compares the program of projects against current budget estimates developed by ADOT Financial Management Systems. The recommended program is also reviewed by the State Engineers Office to ensure that the projects can be constructed in the timeframe outlined by the program. After all the reviews are completed, the Board adopts the draft program to be presented to the public.

Program approval – Public comments are gathered at public hearings held in Phoenix, Tucson, and Flagstaff. In addition, ADOT’s consultation process with non-metropolitan, local-elected officials will be used to provide information about the programming process to these groups. Once public comments are incorporated, the State Transportation Board approves the final *Five-Year Transportation Construction Program*.

■ 9.2 Integrating MoveAZ into the Five-Year Program

Integrating MoveAZ into the Priority Programming Process will occur over several programming cycles. Because ADOT is just beginning to undertake both performance-based planning and programming, it will take time to identify to implement a performance-based program. The purpose of this section is to outline that process.

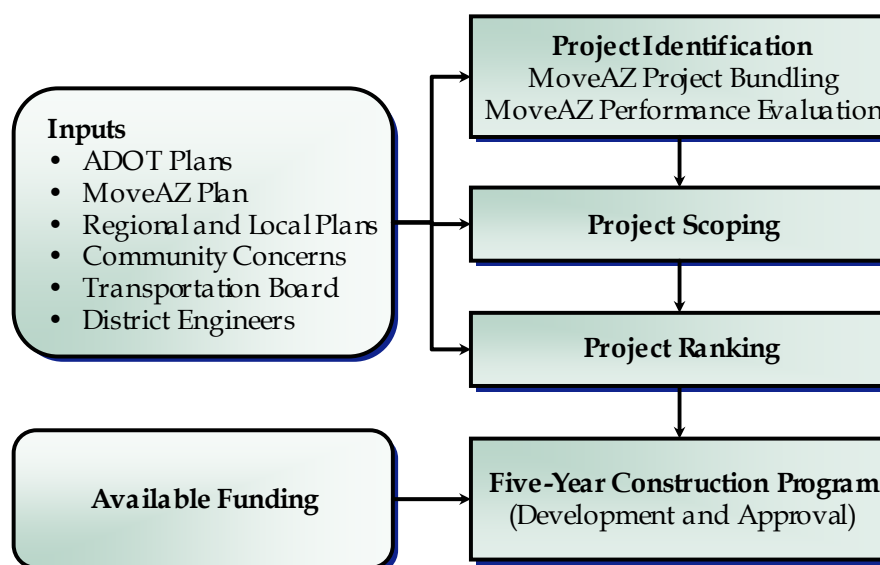
MoveAZ supports programming by providing quantitative information to ADOT to evaluate the performance benefits of major capital projects. MoveAZ does not supplant the current method used to develop the Five-Year Program or change the roles of ADOT staff and the Transportation Board. Instead, it provides additional project performance and benefit information to help support decision-making by these agencies.

This section describes two key aspects of the integration of MoveAZ into the programming process: 1) project identification and 2) scoping.

Project Identification

MoveAZ will interface with the programming process primarily at the project identification level. MoveAZ includes two key processes that affect the method of project identification. The relationship between these processes and MoveAZ are illustrated in Figure 9.2.

Figure 9.2 ADOT Updated Priority Programming Process



First, MoveAZ includes a process for examining the long-range impacts of projects. To do so, individual project elements were bundled into larger projects. This bundling process can be applied to needed improvements identified from any of a number of sources, including future planning studies, community concerns, projects identified by board members, and regional and local studies. As needs and projects are identified, they will be transmitted through this bundling process.

Second, MoveAZ includes a quantitative process for evaluating the performance impacts of these bundles. Each bundle that is identified for potential programming will pass through this process.

The result of these analyses will be a set of bundled projects scored and ranked according to performance measures for consideration in the programming process. Project bundles will then be considered for scoping.

Scoping

Before project identification transitions completely to the MoveAZ process, ADOT will need to clear the pipeline of already-scoped projects. The existing scoping pool includes hundreds of millions of dollars of projects. Some of these projects will have fatal flaws or other considerations that prevent them from being programmed. Due to the sheer volume of projects already scoped, ADOT will need multiple programming cycles to work through these previously scoped projects before the project bundling and evaluation process developed for MoveAZ is used for all projects.

ADOT has limited funding to pay for scoping studies. In 2003, only two new scoping studies were completed at a cost of close to \$1 million each. With additional projects under consideration from the MoveAZ process, additional funding will be necessary to be able to scope all of these projects. As described above, selecting projects for scoping is the first stage in the project prioritization process. ADOT, the Transportation Board, and its committees will use the performance analysis from MoveAZ and other information to identify projects that are first in line for scoping.

■ 9.3 Next Steps

The approaches presented above highlight how ADOT's priority programming process will utilize the performance evaluations developed for MoveAZ. The process of capital programming is based not only on technical evaluation, but also using a variety of policy considerations and qualitative factors, such as timing and funding. The next step is to apply and continually refine the methodology to integrate MoveAZ project bundles into future programming cycles.

MoveAZ used a number of important inputs to identify projects and evaluate them. Over the next several years, ADOT will continue to update and refine these inputs, including:

- Conducting new multimodal regional transportation profiles all across the State. Figure 9.4 presents the approach ADOT will take to conduct these profiles in the future. The profiles will cover large geographic regions of the State than the corridor profiles ADOT has conducted over the past 10 years, and will provide information about the state highway system within the area. The transportation profiles will be the primary source of needs assessment and project identification for planning.
- Continue developing Small Area Transportation Studies (SATS) in small towns and communities across the State. SATS are another means to identify potential projects for evaluation and consideration.
- Updating the State Bicycle/Pedestrian Plan, building on the plan that was completed in 2003.
- Conducting a freight and goods movement study. This study will focus on the economic impacts of goods movement and the infrastructure critical to support the freight system.
- Conducting regional transit plans for each of the four COGs in Arizona (Northern, Western, Central, and Southeastern).

These inputs, as well as studies conducted by regional planning agencies, will be used to identify deficiencies on the state transportation system, suggest projects to improve transportation, and be evaluated in the updated long-range transportation plan every five years, as required by state law. The process to develop an updated plan will build on the work completed for MoveAZ, advancing ADOT's use of performance-based planning and programming.

Figure 9.3 Regional Corridor Study Areas

